Attachment 1

CIWMB 1996 RPPC Recycling Rate Calculation Methods Evaluation

Results of January 8, 1997 Meeting Exercises

CRITERIA RANKING EXERCISE

As discussed at the meeting, the criteria were to be weighted on a 1-5 scale. To obtain the final weighting factor, the total score was divided by the conversion factor. The conversion factor was calculated by dividing the highest total score by 5, the highest possible weighting factor.

Results of Group Criteria Ranking

CRITERIA	TOTAL SCORE	CONVERSION FACTOR	WEIGHTING FACTOR
Accuracy	18	3.6	5
Defensible	13	3.6	4
Error Rate	10	3.6	3
Cost	4	3.6	1
Repeatable	2	3.6	1
Ability to Validate	1	3.6	1

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NUMERATOR EVALUATION EXERCISE

The overall score for each potential method was calculated by first compiling the worksheets that Cascadia received from interested parties by January 22, 1997. (The group agreed to a deadline of January 13, 1997; no other worksheets have been received since January 22.) All of the advantages and disadvantages of each method were first listed in the appropriate column. An advantage score and a disadvantage score were then derived by multiplying the number of times a criteria showed up in the column times the weighting factor for that criteria. Finally, the disadvantage score was subtracted from the advantage score to obtain the overall score. So, using an example from below for the survey collectors method, the advantage score was calculated by multiplying the weighting criteria for "defensible" (4) times the number of times defensible was listed (1) to obtain a score of 4. The disadvantage score was calculated by multiplying the weighting criteria for "accuracy" (5) times the number of times accuracy was listed (3) and adding that to the weighting criteria for "cost" (2) times the number of times was listed (2) to obtain a score of 17. Seventeen was then subtracted from 4 to obtain a final score of -13. Or, [(4*1)-((5*3)+(2*2))=-13].

Results of Group Numerator Evaluation Exercise

Method	Advantages	Score	Disadvantages	Score	Overall Score (advantage - disadvantage)
2. Survey collectors	defensible	4	accuracy (3), cost (2)	17	-13
3. Survey processors	defensible, accuracy, cost	10	accuracy (3), repeatable, cost (2)	18	-8
4. Survey reclaimers/end-users	accuracy (5), defensible (2), cost (3)	36	ability t validate (2), repeatable, cost	4	32
5. Extrapolate based on national recycling data	cost (2)	2	accuracy (2), defensible, error rate	17	-15
7. Adjust 1995 recycling data	cost (5), accuracy, repeatable	11	ability to validate (2), defensible (2), accuracy (2)	20	-9
10. Piggy back on national survey	cost	1	accuracy	5	-4

Numerator methods to be fully evaluated by Cascadia:

4. **Survey reclaimers/end-users (option 10 can be explored here)**
3. **Survey processors**
7. **Adjust 1995 recycling data**

DENOMINATOR EVALUATION EXERCISE

The same process described for the numerator evaluation process was used to rank the denominator methods. However, the interested parties only agreed to further evaluation three methods at the meeting, so each of the three methods will be analyzed in detail.

Results of Group Denominator Evaluation Exercise

Method	Advantages	Score	Disadvantages	Score	Overall Score (advantage - disadvantage)
D. Pro-rate national resin production data and adjust for mfg. Loss	cost (2), repeatable, accuracy	8	error rate, defensible, cost (2), accuracy (2), repeatable (2), ability to validate (2)	23	-15
E. Conduct waste composition study	accuracy (2), error rate (2)	16	cost (4), accuracy (2), defensible	18	-2
G. Adjust results of 1995 study and apply to 1996 disposal data	cost (3), repeatable (2), accuracy (2), defensible (2)	23	defensible (4), accuracy (2)	26	-3

Denominator methods to be fully evaluated by Cascadia:

D. Pro-rate national resin production data and adjust for manufacturing losses

E. Conduct waste composition study

G. Adjust results of 1995 study and apply to 1996 disposal data

These results are a compilation of input from interested parties and do not reflect Cascadia's position on the most feasible and accurate methods for calculating the 1996 RPPC recycling rate.

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